

Moribund Patient's Trust Is at Stake

By Joshua Lederberg

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THE OUTCOME of the first heart transplantation in man, at Cape Town, will be highly precarious for many months if it is not settled sooner by a postoperative failure. The immediate problem is immunological rejection of the transplanted heart by the new host.

Experience with other organs gives modest but definite hope that the rejection process can be muted by the skillful use of drugs. With kidney transplants, the least favorable results have been obtained with unrelated donors; the best, when transplants were made from a mother to her daughter, since the rejection process is a measure of the genetic dissimilarity of the organ donor and the new host.

No Guiding Policy

FOR AT LEAST five years, the technical feasibility of such a transplant has been evident from trials with laboratory animals. Meanwhile, there have been modest improvements in immunosuppressive drugs. The principal reason for the delay in carrying the process to a human conclusion has been the lack of a community policy which would justify a surgeon in taking a heart still able to beat for the benefit of another person.

A kidney can be offered by a healthy donor with a minimum of risk, since the second kidney can easily meet the body's needs. The heart cannot be spared.

Besides the virtual absence of a legitimate supply, the problem of heart transplants is aggravated by the potential demand: many more people face early disability or death from failing hearts than from faulty kidneys.

Many surgeons and medical researchers who have anticipated the technical success of heart transplantation have been deeply perplexed how to develop a humane but rational policy. When heart transplantation is more routinely feasible, the decision to bypass an opportunity to save a cardiac patient's life will be just as grave as the decision to take advantage of it.

We must preserve the confidence of every patient that his physician's dedication to his welfare is uncontaminated

by the patient's utility as a biological resource for some other, possibly worthier patient. In fact, this problem may be so difficult, and the new stresses it places on the doctor-patient relationship so intolerable, that we ought to make urgent efforts to evade it with further technical advances.

Priority on Prevention

THERE ARE THREE general directions, the most rewarding of which is fundamental research leading to prevention of cardiac disease. But we can also foresee more systematic efforts at the development of mechanical hearts and the possible utilization of hearts from lower animals, probably specially bred for the purpose.

Faced with the dissipation of Federal funds for other purposes, the National Institutes of Health have been forced to make an intolerable choice of priorities, and their policy is to concentrate on research in prevention. Over the years, this offers the hope of lessening the need for new hearts, but there will almost certainly continue to be an important demand and we must still learn how to rationalize their supply.

Some surgeons have talked of the need to redefine the criteria of "death" in the light of modern biological knowledge. Different organs survive for different periods after the heart has unequivocally stopped; many people have achieved a very hypothetical kind of immortality by the cultivation of their cells in tissue culture in the test tube.

The heartbeat is the traditional sign of life mainly because it can be perceived by everyman, and then because stopping the flow of blood to the brain results inevitably in the rapid and irreversible decay of mental function.

We now have artificial pumps that can take the place of the heart for at least some hours. A stopped heart can sometimes be restarted by electric stimulation. The heartbeat is therefore an obsolete criterion. We ought to replace it by some measure of brain function and certainly accept as "dead" a person whose brain has been mangled in an accident, regardless of the condition of his heart.

A deeper reading of contemporary biological perceptions of "death" suggests, however, that no particular redefinition of the traditional concept is scientifically justifiable. Rather than attempt such a sweeping change of

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meaning, the law should simply authorize such specific acts as removing a heart when certain procedural and medical criteria can be certified.

When pumps are available, taking the heart does not immediately kill the brainless patient; at worst, it merely seals a doom that should have been beyond any hope of averting before the procedure was contemplated.

A Mutual Club

THE MEDICAL TECHNICALITIES are easier to rationalize than the protection of the rights of the person. The law governing a man's right to dispose of his own body is confused, and the surviving relatives must usually be consulted, a procedure that would often frustrate getting organs in time to be of any use. Some states have begun to codify specific rights of an individual to direct the disposition of his postmortem remains, which suggests individual consent as the most constructive precedent for solving the heart donation problem.

Many people would resist any rational argument for intruding upon their warm bodies in any circumstances and few would want to disregard such a wish. Many more people, it may be hoped, would gladly authorize any help that their organs might serve in another man's life if they thought of the possibility of a tragic accident that left them in a state of imminent death.

The happiest solution to legitimizing the supply of human organs for transplant would be to set up machinery to register advance, positive, voluntary consent, a club for mutual salvation. The membership contracts could allow some range of alternative criteria for when the "donations" would be permitted. While this machinery was being popularized, surviving relatives might have carefully constrained rights to act on behalf of a severely damaged patient in a state of terminal coma.

Is this macabre, to couple unavoidable death with a voluntary gift of life?